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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,656	11/18/2003	Koji Yano	008312-0306858	2832
909	7590	05/03/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			SNIEZEK, ANDREW L	
			ART UNIT	PAPER NUMBER
			2651	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,656

Applicant(s)

YANO, KOJI

Examiner

Andrew L. Sniezek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,10 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-4,8,9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/8/04, 11/18/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements filed 11/8/04 and 11/18/03 have been considered.

Drawings

2. The drawings filed 11/18/03 are acceptable to the examiner.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. Claim1 is objected to because of the following informalities: The word --servo— on line 9 is misspelled as "serve. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle et al. (4,502,082) in view of Knowles et al. (4,823,212)

Ragle et al. teaches a disk drive that includes a head (h) for reading/writing an actuator (213) to position the head across the disk a controller (203) wherein the disk includes plural tracks with servo areas and data areas, which as seen for example in figure 1, the track can be close to the outer radius or close to the inner radius of the disk and as taught by column 6, lines 54-68 and as seen from figures 3, 3A has the inclination angle of the data (work bits) is different then the servo data. The difference between the claimed invention as set forth in claim 1 and that of Ragle et al teaches the use of a linear actuator where the claim sets forth a rotary actuator. It is well known in the art that rotary actuators and linear actuators can be interchangeably used to position a head across a disk. See Knowles et al. (discussion of figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace a linear actuator as taught by Ragle et al. with a rotary actuator as taught by Knowles et al. since it is well known that they or interchangeable.

Concerning claim 5: See figure 3A which teaches a head (TR) that servo writes data with gap portion (g') at a different skew angle than gap (g).

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Method claim 7 is drawn to the method of using the corresponding apparatus claimed in claims 1 and 5. Therefore method claim 7 corresponds to apparatus claims 1 and 5 and are rejected for the same reasons of anticipation (obviousness) as used above.

8. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle et al. and Knowles et al. as applied to claims 1,5 and 7 above, and further in view of Tsuchiya et al.

The teachings of Ragle et al. and Knowles et al. is discussed above and incorporated herein. Claim 6 additionally sets forth that the disk drive is a perpendicular type and that it uses a single pole type head. Although not taught by Ragle et al. or Knowles et al. such arrangements are well known as taught by Tsuchiya et al. (US006795277B2) which offers high format volume, easy servo, difficulty of influencing a recording pattern on a medium, and capability of shortening processing time (abstract). It would have been obvious to one of ordinary skill in the art at the time of the arrangement to incorporate such features in the teachings of Ragle et al. and Knowles et al. as combined for the purposes discussed in Tsuchiya et al.

Method claim 12 is drawn to the method of using the corresponding apparatus claimed in claims 6. Therefore method claim 12 corresponds to apparatus claim 6 and is rejected for the same reasons of anticipation (obviousness) as used above.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle et al. and Knowles et al. as applied to claims 1,5 and 7 above, and further in view of Applicants admitted prior art as discussed on page 2 of the specification.

The teachings of Ragle et al. and Knowles et al. is discussed above and incorporated herein. Claim 10 additionally sets forth the use of a servo track writer (STW) exclusively used to write the servo information. Although not taught by Ragle et al.; of Knowles et al such devices are well known as discussed by applicant in the background of the invention to provide an accurate placement of the servo data on the disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to record a servo and data arrangement as taught by Ragle et al. and Knowles et al. as applied but instead of using the same device for recording both the servo and data, to use a well known (STW) as discussed by applicant since such devices are known to provide very accurately placed servo information on a disk.

Allowable Subject Matter

10. Claims 2-4, 8, 9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The inclination angles of the data in the data area and servo data be almost equal (claim 2/1) is neither taught by nor an obvious variation of the art of record. The inclination angles of the data in the data area and servo data being 0 degrees and almost equal in an intermediate radius of the medium and smaller in tracks in the outer radius of the disk as set forth in claim 3/1 and 8/7 is neither taught by nor an obvious variation of the art of record. The inclination angles of the data in the data area and servo data being 0 degrees and almost equal in an intermediate radius of the medium

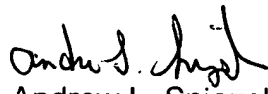
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and smaller in the tracks included in the inner radius of the disk as set forth in claim 4/1 and 9/7 is neither taught by nor an obvious variation of the art of record. The claimed method of claim 11/10/7 that that uses a (STW) that changes the inclination of to become smaller than the data is neither taught by nor an obvious variation of te art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Sniezek whose telephone number is 571-272-7563. The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrew L. Sniezek
Primary Examiner
Art Unit 2651

A.L.S.
4/29/05